

A NEW SPECIES AND A NEW RECORD SPECIES OF THE GENUS SCAPHIDIUM OLIVIER (COLEOPTERA, STAPHYLINIDAE, SCAPHIDIINAE) FROM CHINA

HE Wen-Jia, TANG Liang, LI Li-Zhen*

Department of Biology, Shanghai Normal University, 100 Guilin Road, Shanghai 200234, China

Abstract A new species of *Scaphidium* collected from Shaanxi is described under the name *Scaphidium zhoushuni* sp. nov., and *Scaphidium dureli* (ACHARD, 1922) collected from Xizang is new to China. Their diagnostic characters are illustrated.

Key words Coleoptera, Staphylinidae, Scaphidiinae, *Scaphidium*, new species, new record, China.

1 Introduction

Scaphidium OLIVIER, 1790 is a large genus of subfamily Scaphidiinae. Up to the present, around 323 species of the genus have been known from the world and 36 species are known from China.

Scaphidium as well as other genera of Scaphidiinae are quite easy to be distinguished from rest genera of Staphylinidae by the box-like and highly convex body form, with the elytra covering the abdomen, but not the flexible staphylinoid body form. To compare with the relative genera of Scaphidiinae, this genus can be distinguished by the combination of the following characters: robust species, head retracted under pronotum, eye notched, segments of antennal club symmetrical, scutellum large and visible, procoxal cavities closed posteriorly, base of elytron impressed to receive extended basal angle of pronotum, centre of metasternum pubescent in male, mesosternal keel bifid basally.

During our research on genus *Scaphidium* of China, one new species and one new record species from China are found, and they are described in this paper.

All the type specimens are deposited in SHNU (Shanghai Normal University).

2 Descriptions

Scaphidium zhoushuni sp. nov. (Figs. 1, 3, 5, 7, 9, 10)

Body length: 4.95-6.00 mm.

Head, pronotum, antennal club, femora and tibiae black, abdominal sternites black. Antennal segments 1 to 6 and tarsi very dark reddish brown. Elytra yellow with basal stria row area and apical black, sutural area dark reddish brown. One, small, black, humeral semicircular spot and one inner board smaller spot join with black basal row area. Two oval, black, big spots on median

portion of elytra.

Frons and vertex with coarse and dense punctures, frons at narrowest point between eyes 0.31-0.36 mm.

Pronotum slightly raised above elytra, strongly inflexed anteriorly, with lateral edges moderately sinuate. Antebasal puncture row impressed. Discal punctation evenly fine, consisting of rather distinct punctures, sparser than that on frons.

Elytra weakly convex, humeral area not raised, discal impression absent. Basal stria slightly impressed, with puncture about as coarser as punctures forming pronotal antebasal row. Adsutural area flat. Sutural stria puncture row relatively fine. Discal punctation fine, slightly finer and sparser than that on pronotum. Discal puncture rows absent.

Prohypomera uneven, with fine and irregular punctures on most inner portion, as well as transverse microsculpture.

Mesepisterna finely punctated and without microsculpture.

Exposed abdominal tergites finely punctated and with microsculpture consisting of punctures.

Most centre portion of sternite one with dense and finely punctures, lateral portion of sternite one sparsely punctated. The whole sternite one with microsculpture consisting of very dense punctures.

Legs moderately long, protibiae slightly sinuated, mesotibiae and metatibiae slightly curved.

Male sexual characters. Metaventricle (Fig. 3) slightly impressed medially, with almost evenly long pubescence. Profemur (Fig. 7) with ventral side slightly expanded, gradually starting from base, with two widest points forming blunt and a smooth tooth at near apical 1/3, followed by ridge. Protibiae (Fig. 7) sinuated, gradually wider from basal 1/3 to apical 1/5, forming angle at widest portion, followed by ridge. Aedeagus (Fig. 9) 1.68 mm long. Internal sac (Fig. 10) with

The project was supported by Shanghai Normal University (SK200711, SK200833) and Shanghai Municipal Education Commission (RE656).

* Corresponding author, E-mail: lizhenli@shnu.edu.cn

Received 2 July 2008, accepted 26 Mar. 2009.

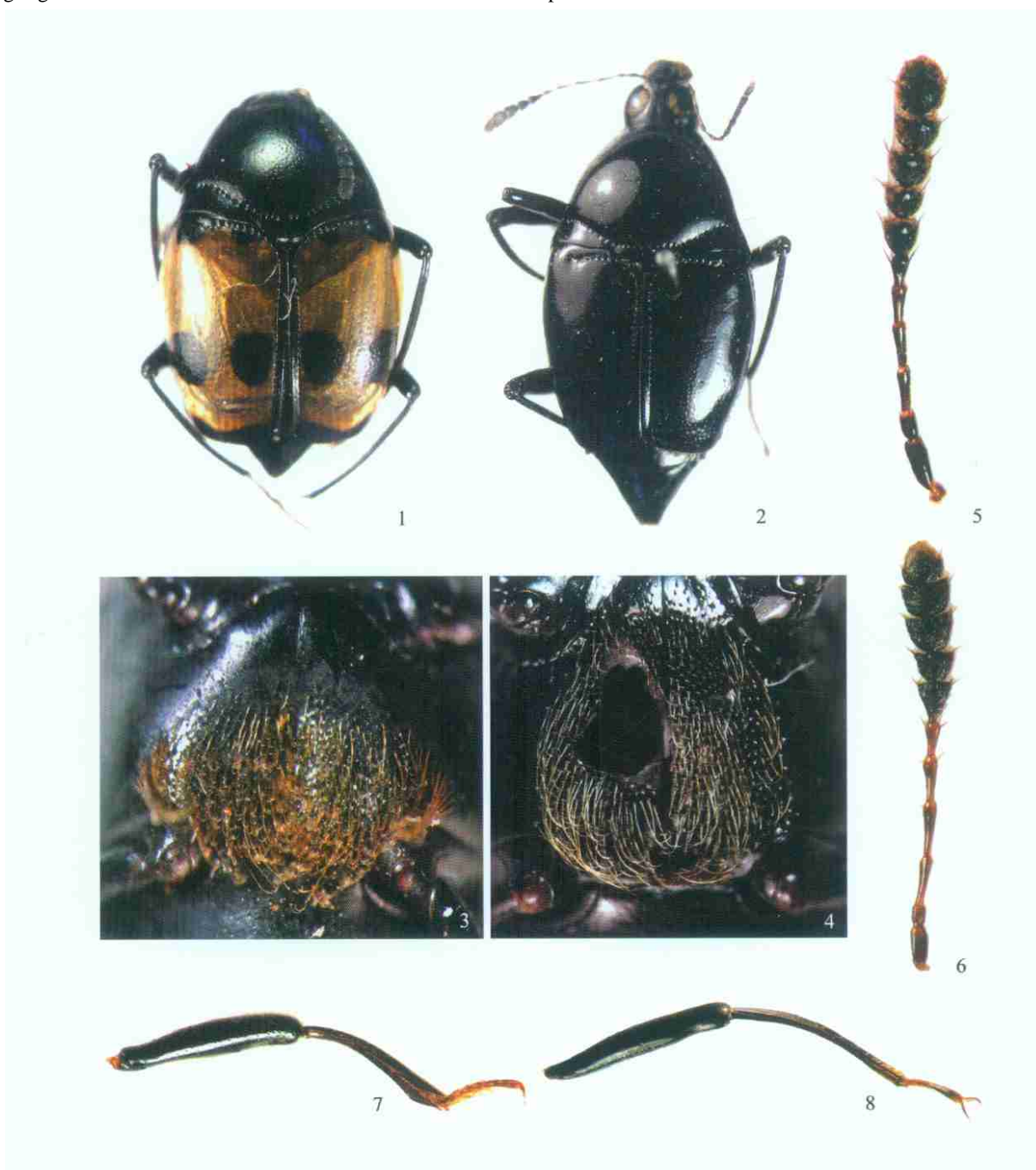
complex of sclerites.

Distribution. China (Shaanxi).

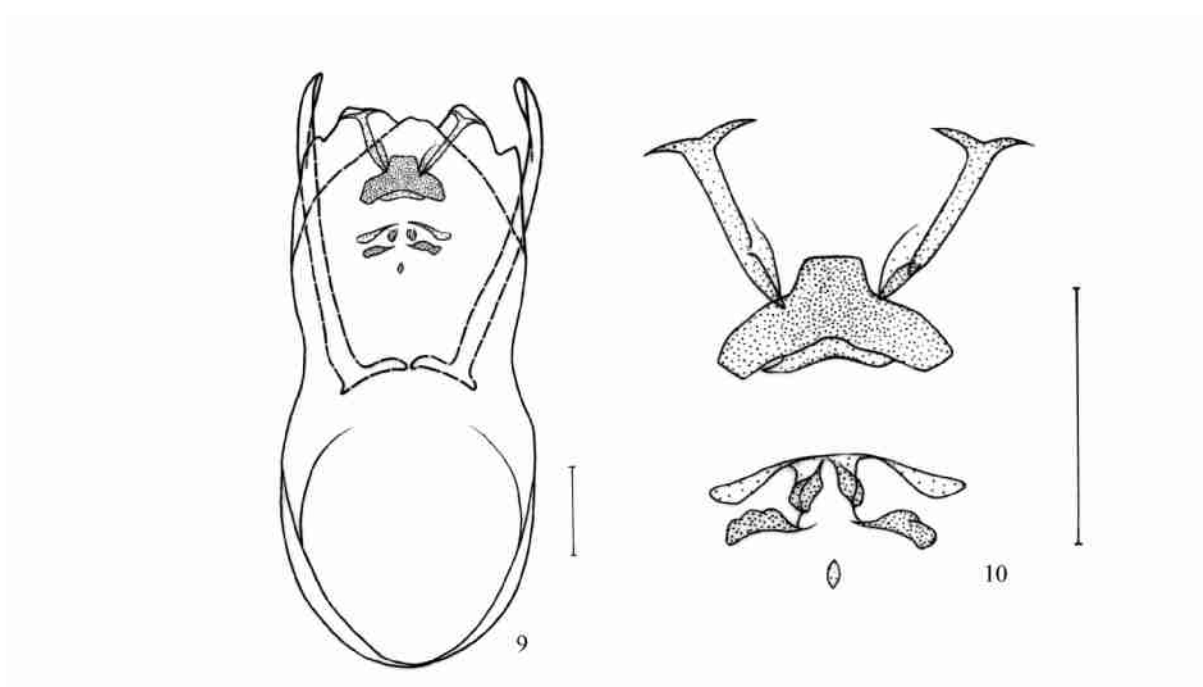
Holotype , China, Shaanxi Province, Hu County, Huashuping, alt. 1 700 m, 24-28 June 2007, ZHOU Shun leg. Paratypes: 1 , 2 , same as holotype; 2 , 2 , China, Chongqing City, Chengkou County, East Daba-Shan, (31°51' N, 109°07' E; alt. 2 039 m), HUANG Hao and XU Wang leg.; 4 , 5 , China, Shaanxi Province, Zhouzhi County, Houzhenzi, (33°51' N, 107°50' E; alt. 1 336 m), 17-19 May 2008, HUANG Hao and XU Wang leg.

Etymology. This species is named in honor of Mr. ZHOU Shun, who collected some specimens used in this study.

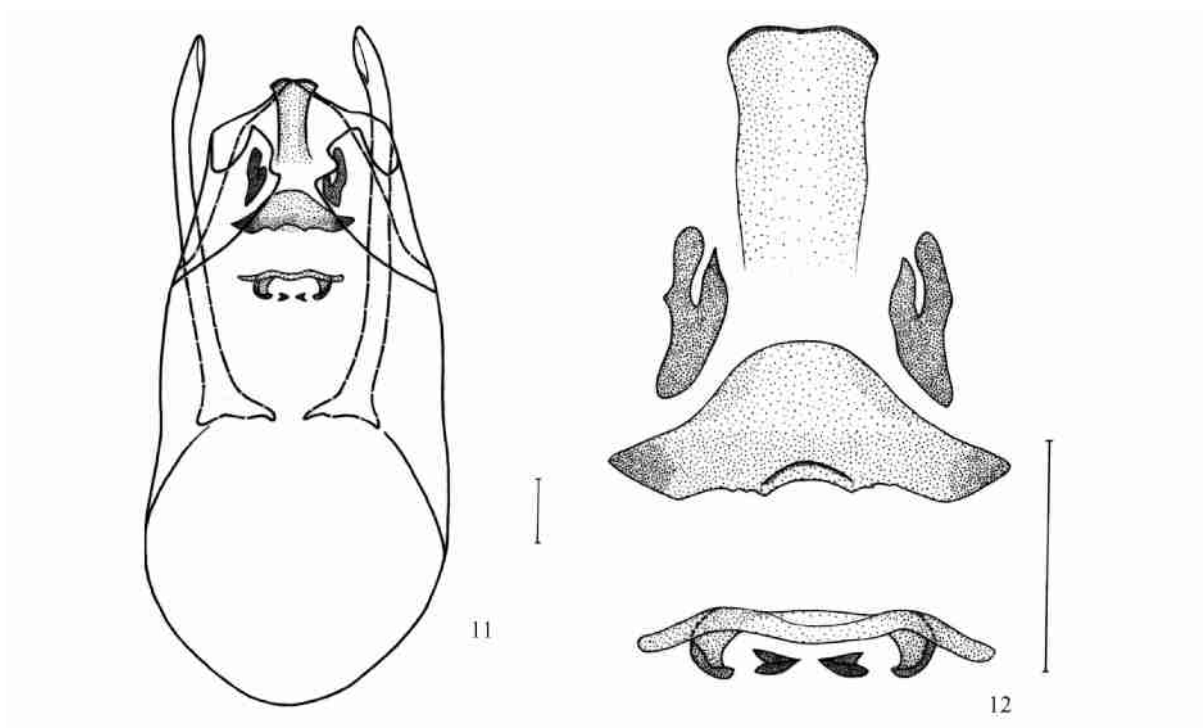
Remarks. This species is quite different from other Chinese species in coloration. Its closest species is *S. incrassatum* Achard, 1920 from Burma and India, but it can be easily recognized by the following points: 1) elytra with median spot a little larger than lateral spot, while in *S. incrassatum* with a very large median spot and distinctly smaller lateral spot on elytra; 2) elytra with a distinct inner basal spot, while in *S. incrassatum* is weakly prominent.



Figs. 1-8. Habitus. 1, 2. Metaventricle. 3, 4. Antenna. 5, 6. And front leg. 7, 8. Scaphidium. 1, 3, 5, 7. *Scaphidium zhoushuni* sp. nov. 2, 4, 6, 8. *Scaphidium dureli* (Achard).



Figs. 9-10. *Scaphidium zhoushuni* sp. nov. 9. Aedeagus in dorsal view. 10. Details of internal sac. Scale bars = 0.25 mm



Figs. 11-12. *Scaphidium dureli* (Achard). 11. Aedeagus in dorsal view. 12. Details of internal sac. Scale bars = 0.25 mm

In the key of Löbl 1999, this species should be placed at # 13, and it can be distinguished from *S. vernicatum* (PIC) by elytra with two small round subbasal spots and one small apical spot.

Scaphidium dureli (Achard, 1922) New record to China (Figs. 2, 4, 6, 8, 11, 12)

Material examined. 1, China, Xizang A. R.,

Yadong, Motuo County, alt. 1 250 m, 25 May 1980, JIN Gen-Tao and WU Jian-Yi leg. 1, China, Xizang A. R., Motuo County, Kabu, alt. 1 070 m, 14 May 1980, JIN Gen-Tao and WU Jian-Yi.

Distribution. India, Bhutan, Sikkim, China (Xizang).

Remarks. This species was original described from India, Bhutan and Sikkim and its diagnostic characters

are illustrated. This species is very similar to *S. grande* Gestro, 1880, and can be distinguished by its diagnostic characters, including male front leg and aedeagus which were given in He et al., 2008.

Acknowledgements We would like to express our sincere gratitude to Dr. I. Löbl (Switzerland) for kindly sending related papers to us, to Prof. LIU Xian-Wei (SEM) for kindly loaning specimens to us. Our special thanks are due to Mr. ZHOU Shun (SEM), who kindly donated *Scaphidium* specimens to us.

REFERENCES

Achard, J. 1920. Description d'espèces nouvelles de *Scaphidium*

(Coléoptères Scaphidiidae) de la région indo-malaise. Bulletin du Muséum d'Histoire Naturelle, 26: 125-128.

He, W-J, Tang, L and Li, L-Z 2008. Notes on the genus *Scaphidium* Olivier of China with description of a new species (Coleoptera, Staphylinidae, Scaphidiinae). The Entomological Review of Japan, 62 (2): 177-182.

Löbl, I. 1992. The Scaphidiidae (Coleoptera) of the Nepal Himalaya. Revue Suisse de Zoologie, Tome 99, Fasc. 3: 471-627.

Löbl, I. 1997. Catalogue of the Scaphidiinae (Coleoptera, Staphylinidae). Instrumenta Biodiversitatis 1. Genève, Muséum d'histoire Naturelle. vii + 190 pp.

Löbl, I. 1999. A review of the Scaphidiinae (Coleoptera: Staphylinidae) of the People's Republic of China, I. Revue Suisse de Zoologie, 106 (3): 691-744.

中国出尾蕈甲属一新种一新纪录种

何文佳 汤亮 李利珍*

上海师范大学生命与环境科学学院 生物系 200234

摘要 描述了来自中国陕西省 1 新种, 周氏出尾蕈甲 *Scaphidium zhoushuni* sp. nov., 来自中国西藏自治区的中国 1 新纪录种 *Scaphidium dureli* (ACHARD), 1922, 并给出了上述 2 种的整体图和特征图。模式标本保存在上海师范大学标本馆。

周氏出尾蕈甲, 新种 *Scaphidium zhoushuni* sp. nov. (图 1, 3, 5, 7, 9, 10)

本种与 *S. incrassatum* Achard, 1920 形似。主要区别: 本种鞘翅中部 2 个黑色斑点大小均匀, *S. incrassatum* 鞘翅中部 2 个黑色斑点, 近缝合线斑点明显大于侧部斑点。

正模, 中国陕西省户县桦树坪, 海拔 1 700 m, 2007-06-24 ~ 28, 周顺采; **副模**: 1, 2, 同正模; 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

关键词 鞘翅目, 隐翅虫科, 出尾蕈甲亚科, 出尾蕈甲属, 新种, 新纪录, 中国.

中图分类号 Q969.484.4

2, 中国重庆市城口县大巴山, 海拔 2 039 m, 2008-06-22 ~ 23, 黄灏和许旺采; 4, 5, 中国陕西省周至县厚畛子镇, 海拔 1 336 m, 2008-05-17 ~ 19, 黄灏和许旺采。

词源: 新种种名以采集人的名字命名。

都瑞出尾蕈甲 *Scaphidium dureli* (Achard, 1922) **中国新纪录** (图 2, 4, 6, 8, 11, 12)

检视标本: 1, 中国西藏自治区墨脱县亚东, 海拔 1 250 m, 1980-05-25, 金根桃和吴建毅采; 1, 中国西藏自治区墨脱县卡布, 海拔 1 070 m, 1980-05-14, 金根桃和吴建毅采。

分布: 中国 (西藏); 印度, 不丹, 锡金。

* 通讯作者.